

WHAT IS CLAIMED IS:

1. An image input apparatus comprising:
photoelectric conversion means for acquiring image
information of an object and outputting signals; and
5 correcting means for and correcting offset
components contained in the signals output from said
photoelectric conversion means components, wherein said
correcting means adjusts a fluctuation of the offset
components generated during acquiring image
10 information.
2. An image input apparatus according to claim 1,
wherein said photoelectric conversion means acquires
the image information of the object from a plurality of
15 divided areas and outputs the signal from each of a
plurality of output units corresponding to each of the
plurality of divided areas.
3. An image input apparatus according to claim 2,
20 wherein the signals from the plurality of areas are
read separately to right and left directions
respectively.
4. An image input apparatus according to claim 2,
25 wherein the offset components include a level
difference of the signals between the areas output from
the plurality of divided areas.

5. An image input apparatus according to claim 1, wherein said correcting means includes:

calculating means for calculating the fluctuation of the offset components in accordance with the signal output from said photoelectric conversion means during the image information acquiring;

subtracting means for subtracting the offset components from the signal output from said photoelectric conversion means; and

adjusting means for adjusting the offset components to be subtracted by said subtracting means, in accordance with an output signal from said calculating means.

6. An image input apparatus according to claim 5, wherein the offset components are a signal output from said photoelectric conversion means during a period other than the image information acquiring, and contain an average value obtained through addition of signals of the areas and averaging thereof.

7. An image input apparatus according to claim 5, wherein said calculating means calculates an average value of signals not obtained through photoelectric conversion.

8. An image input apparatus according to claim 7,

wherein the signal not obtained through photoelectric conversion means includes a signal in a non-image pixel portion.

5 9. An image input apparatus according to claim 5, wherein adjusting the offset components by said adjusting means is executed during the period image information acquiring.

10 10. An image input apparatus comprising:
photoelectric conversion means for acquiring image information of an object and outputting signals; and
correcting means for correcting offset components contained in the signals output from said photoelectric
15 conversion means, in accordance with the signals output from said photoelectric conversion means during image information acquiring and the signals output from said photoelectric conversion means during a period other than the image information acquiring.

20 11. An image input apparatus according to claim 10, wherein said photoelectric conversion means acquires the image information of the object from a plurality of divided areas and outputs the signal from
25 each of a plurality of output units corresponding to each of the plurality of divided areas.

12. An image input apparatus according to claim 11, wherein the signals from the plurality of areas are read separately to right and left directions respectively.

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13. An image input apparatus according to claim 11, wherein the offset components include a level difference of the signals between the areas output from the plurality of divided areas.

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14. An image input apparatus according to claim 10, wherein said correcting means includes:

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calculating means for calculating the fluctuation of the offset components in accordance with the signal output from said photoelectric conversion means during the image information acquiring;

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subtracting means for subtracting the offset components from the signal output from said photoelectric conversion means; and

adjusting means for adjusting the offset components to be subtracted by said subtracting means, in accordance with an output signal from said calculating means.

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15. An image input apparatus according to claim 14, wherein the offset components are a signal output from said photoelectric conversion means during the

period other than the image information acquiring, and contain an average value obtained through addition of signals of the areas and averaging thereof.

5 16. An image input apparatus according to claim 14, wherein said calculating means calculates an average value of signals not obtained through photoelectric conversion.

10 17. An image input apparatus according to claim 16, wherein the signal not obtained through photoelectric conversion means includes a signal in a non-image pixel portion.

15 18. An image input apparatus according to claim 14, wherein adjusting the offset components by said adjusting means is executed during the period other than image information acquiring.

20 19. An image input apparatus comprising:
photoelectric conversion means for acquiring image information of an object with dividing the image information into a reference area and at least one other area, and outputting a signal from each of a plurality of output units corresponding to the areas;
25 and

adjusting means for adjusting a signal level of an

output signal from the at least one other area so as to make equal substantially to a signal level of an output signal from the reference area, in accordance with the signals from the reference area and the other area.

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20. An image input apparatus according to claim 19, wherein said adjusting means compares output pixel signals from near a boundary between the reference area and the other area, and in accordance with a comparison result, adjusts the signal level of the output pixel signal from the other area.

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21. An image input apparatus according to claim 20, wherein said adjusting means includes:

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presuming means for presuming a relation between the signal level of an output pixel signal from the reference area and the signal level of an output pixel signal from the at least one other area in accordance with a ratio between the output pixel signals from near the boundary between the reference area and the other area; and

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correcting means for correcting the output pixel signal from the other area in accordance with a presumption result by said presuming means.

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22. An image input apparatus according to claim 21, wherein said presuming means calculates the ratio

between the signal levels of the output pixel signals from near the boundary between the reference area and the at least one other area for each of a plurality of level areas provided by dividing the signal level of the output pixel signal from at least one the other area near the boundary of the reference area.

23. An image input apparatus according to claim 22, wherein if there are in the same level area a plurality of output pixel signals from the at least one other area near the boundary of the reference area, said presuming means calculates an average value of the output pixel signals from the at least one the other area in the same level area, and calculates the ratio between the signal levels of the output pixel signals in accordance with the calculated average value.

24. An image input apparatus according to claim 22, wherein if there are in the same level area more than predetermined number of output pixel signals from the at least one other area near the boundary of the reference area said presuming means inhibits to calculate an average value of the output pixel signals from the at least other area in the same level area and does not calculate the ratio between the signal levels of the output pixel signals.

25. An image input apparatus according to claim
21, wherein if a difference between the output pixel
signals from near the boundary between the reference
area and the other area is larger than a predetermined
5 value, said presuming means excludes the output pixel
signals from data to be used for calculating the ratio
between the signal levels of the output pixel signals.

26. An image input apparatus according to claim
10 21, wherein as to the level area where no output pixel
signal from the at least one other area near the
boundary of the reference area, said presuming means
calculates the ratio between the signal levels through
an interpolation calculation.

15 27. An image input apparatus according to claim
21, wherein if a new output pixel signal is acquired
from the at least one other area near the boundary of
the reference area when an image of a new object is
20 read, said presuming means updates the ratio between
the signal levels in the level area corresponding to
the output pixel signal in accordance with the newly
acquired output pixel signal.

25 28. An image input apparatus according to claim
19, wherein the number of image gradation steps of an
output pixel signal after the signal level is adjusted

by said adjusting means is set smaller than the number of image gradation steps of the output pixel signal before the signal level is adjusted by said adjusting means.

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29. An image input apparatus according to claim 19, further comprising shading correcting means for executing a shading correction of an output pixel signal output from said photoelectric conversion means, wherein said adjusting means adjusts the output pixel signal after subjected to the shading correction by said shading correcting means.

30. An image processing method of processing signals output from photoelectric conversion means for acquiring image information of an object and outputting the signals, said method comprising a step of:

correcting offset components contained in the signals output from said photoelectric conversion means, wherein said correcting step includes a step of adjusting a fluctuation of the offset components generated during acquiring image information.

31. An image processing method of processing signals output from photoelectric conversion means for acquiring image information of an object and outputting the signals, said method comprising a step of:

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a code of correcting offset components contained in the signals output from said photoelectric

36. An image input system comprising:

an original support for placing an original thereon;

an illumination lamp for illuminating the original placed on said original support;

the image input apparatus recited in one of claims 1, 10 and 19;

a lens for focussing light reflected from the original illuminated with said illumination lamp on the image input apparatus; and

a plurality of mirrors for guiding the light reflected from the original to said lens.